2014-2015 Reports

1. 2015 Information Technology Strategic Plan Update (GC 11545 (c))
2. 2014 Annual IT Performance Metrics Report (GC 11545 (d)3)
3. 2014-2015 Annual Department of Finance Cost Savings and Avoidance Report (GC 11545 (d)4)

Executive Summary

This packet provides three individual documents required of the California Department of Technology by statute. These documents are:

- 2015 Annual Information Technology Strategic Plan Update
- 2014 Annual Information Technology Performance Metrics Report
- 2014-2015 Annual Department of Finance Cost Savings and Avoidance Report

The Annual Information Technology Strategic Plan update is attached herein, but can also be found on our website at www.cio.ca.gov.

2014 Annual IT Performance Report (Government Code 11545 (d)3)

In 2009, the Office of the State Chief Information Officer (OCIO) developed a performance framework of Information Technology (IT) metrics to measure progress statewide. This report provides the annual update to the Legislature and provides context for the collected and reported metrics, as indicated below.

Infrastructure Rationalization: Infrastructure Rationalization speaks to the efforts to consolidate, share, and standardize statewide IT infrastructure (AB 2408, Chapter 404, 2010). Due to an increased emphasis on server virtualization, the number of physical servers statewide has declined during the past five years. However, this decline is somewhat offset by an increase in the number of servers, both physical and virtual, needed to accommodate and support new and expanding IT systems throughout the state. Statewide data center capacity met the 50 percent target reduction rate in 2012, and has continued to maintain this since; information is included in this report to further comply with the five year data requirement. The number of Wide Area Networks reflects the reductions which have occurred due to consolidation efforts. The number of email boxes in E-Hub reflects the number of email boxes available to adopt the statewide email security solution.

Service: Service level metric for measuring public satisfaction with online services, as presented in previous reports, has been integrated into the Reliability metrics since 2011. Future reports will continue to show this in the Reliability metric section as with current technology offerings it is now a function of System Availability and Network Availability.

Project Management: Project Management data shows variations over time in the percentages of reportable projects delivered on time and within budget. For calendar year 2014, there is a significant improvement in the percentage of projects completed on time, and a modest decrease in the percentage of projects delivered within budget. Due to the fluctuations in sample size from year to year, predictive value of this data is limited. To address the evolution of the Department of Technology's role related to project oversight, we will be exploring alternate metrics in 2015 to more accurately reflect current statewide efforts and improvements, and seek to capture the most relevant data possible.

The Department of Technology, in 2014, launched a Division of Consulting and Planning to assist projects experiencing significant challenges. The Division works with state agencies to restore project equilibrium and ensure the project's continued value to the state.

The state IT community has undertaken considerable efforts to ensure project success. The Department of Technology has responsibility for oversight of the state's technology projects, although it does not directly manage projects. The Department of Technology provides review and approval during project initiation and monitors projects once they have begun to identify potential risks and issues before there is a significant impact to the schedule or budget. The department coaches, mentors, and guides correction at such times as warranted.

The Department of Technology has implemented reforms intended to reduce the risk of project failure, including:

- Initiation of a Statewide Project Management Office designed to provide state level information technology project management expertise to state projects.
- Reformed the approval process for IT projects through the Statewide Technology Approval Reform (STAR) project. This end-to-end review of the project approval lifecycle will ensure projects are properly planned and resourced, leading to more realistic budget and schedule estimates. The revised process focuses on key elements that are necessary for project success. The revised process places greater emphasis on documenting the business problem which an agency is seeking to address through investment in a technology solution. Additionally, greater emphasis is placed on ensuring that departments have the capacity to successfully complete a project. This will help ensure projects are implemented more timely and within budget.
- Embedding of Department of Technology oversight staff within large and mid-size high-risk projects to provide direct oversight, input, and feedback.
- Transitioned IT project procurement authority from the Department of General Services to the Department of Technology. Having IT project procurements in the same department as project oversight allows seamless incorporation and leveraging of the lessons learned across California's project portfolio. Having responsibility for both of these functions will allow the Department of Technology to mitigate project risks and streamline the IT project procurement process.
- Increased and targeted training for IT project sponsors and project teams.
- Increased communications with project directors and vendors on large projects.
- Cataloguing and sharing of lessons learned from across the state's IT project portfolio.

While we see some immediate results from these initiatives (better trained project staff, improved processes, etc.), a majority of projects currently underway were set in motion many years ago, long before these initiatives were initiated. As opportunities arise, the Department of Technology has initiated reviews of existing projects and, where applicable, The Department of Technology will monitor the impact of these efforts as projects are developed through the improved processes.

Reliability: The Reliability metric indicates the percentage of state agencies with current IT disaster recovery plans. Each agency or state entity is required to submit a full plan when changes are made, or certify that no changes were made to necessitate such a revision. System and Network availability are also included in this section.

Sustainability: As required by Government Code 11545, the Sustainability metric reports on the departments' energy usage; the 33 percent reduction goal was achieved in 2012 and has been maintained since that time.

Information Security: Information Security metrics have varied greatly over the years. The variance in the number of data breaches reported since 2011 is due largely to state agencies' increased awareness of their responsibility for reporting these incidents to the California Information Security Office. The increase in the number of data breaches is also attributed to staff turnover, and insufficient information security awareness training programs within departments.

In 2014, the California Information Security Office has undertaken or expanded upon the following initiatives to enhance the security of California's technology resources:

1) Partnered with the Governor's Office of Emergency Services to form the California CyberSecurity Task Force to strengthen and enhance California's cybersecurity. The Task Force formed the following committees: Legislation and Funding; Risk Mitigation; Cyber Emergency Preparedness; Cybersecurity Workforce Development; Information Sharing; High-tech and Digital Forensics; and Economic Development. The Task Force accomplished four significant objectives in 2014:

- Engaged a wide-range of public-private stakeholders in a series of meetings and webinars for the development of a Cybersecurity Strategy for California, to be published in first quarter 2015.
- Established, opened, and staffed a state-run digital forensics laboratory.
- Obtained the Department of Human Resources' recommendations and support to further study and address the cybersecurity workforce challenges in state government.
- Incorporated cybersecurity into existing state innovation infrastructure.

2) Co-Sponsored the National CyberSecurity Awareness Month (NCSAM) event: CyberSecurity Symposium – The Internet of Things. The annual National CyberSecurity Awareness event, which included educational content, was videotaped and is available on the California Information Security Office Website. The event reached more than 800 people and 97 percent of post event survey respondents rated the overall educational content "good to excellent."

3) Participated in the State Technology Approval Reform (STAR) Project to integrate information technology security policy into the stages of the Project Approval Lifecycle.

4) Initiated the Information Security Compliance and Oversight Function Pilot Project as a result of a successful Budget Change Proposal.

5) Collaborated with Department of General Services to integrate information technology security policy into the Terms and Conditions for Software as a Service (SaaS) contracts and provided web-based instruction on the Department of General Services' site.

6) Provided Information Security Officer Basic Training to help ensure policy compliance.

7) Hosted Information Security Officer and Technology Recovery Coordinator bimonthly meetings to discuss emerging information security issues and invited subject matter experts as speakers.

8) Prepared information security policy presentation input for educational courses delivered through the Statewide Office of Professional Development's Project Management Academy.

9) Represented the Office of Information Security at numerous state, local, tribal and territorial speaking engagements as part of the cyber security awareness outreach campaign.

10) The California Information Security Office worked with the Department of Military to establish and promote its Computer Network Defense (CND) services. The CND offering includes vulnerability and risk assessment services and is now accessible through the Department of Technology's online service catalog.

California Department of Technology 2014 Annual IT Performance Report					
Metrics shown in Calendar Year Data					
Infrastructure Rationalization					
Metric	**2010**	**2011**	**2012**	**2013**	**2014**
# of servers (physical)	8,129	7,266	Data not available[1]	Data not available[1]	Data not available[1]
Statewide data center capacity (sq. ft.)	262,500	181,324	50% reduction achieved	50% reduction maintained	50% reduction maintained
# of Wide Area Networks	50	45	25	3	3
# of email boxes in E-Hub	163,630	166,949	166,980 (99.5%)[2]	166,980	166,980

[1]This data is no longer collected as this was not an effective metric.

[2]Percentage of mailboxes migrated to eHub reflected in the 2012-2013 report rather than number of email boxes in eHub.

Service					
Metric	**2010**	**2011**	**2012**	**2013**	**2014**
Public satisfaction with online services	90%	N/A[3]	N/A[3]	N/A[3]	N/A[3]
Service level objectives	88%	100%	N/A[4]	N/A[4]	N/A[4]

[3]Public satisfaction survey, from 2007-2010 CA.Gov template, was eliminated as data no longer captures current technology efforts and is therefore not considered useful.

[4]Service level objective data in past years was a factor of Network and System Availability. This data is presented under "Reliability" below, and is thus no longer reported separately.

Project Management					
Metric	**2010**	**2011**	**2012**	**2013**	**2014**
% of projects delivered on time and within budget[5]	70%	29%[6]	40%	37.5%	75%
% of projects completed within budget[5]	75%	43%[6]	80%	93.75%	75
% of projects delivered on time [5]	75%	56%[6]	40%	37.5%	75%

[5]Data is based on reportable projects completed in a given year with schedule and cost projections compared to last approved baselines. In 2014, data was available for four completed projects. This small sample size limits its predictive value.

[6]Percentages shown for 2011 previously erroneously reported in incorrect rows.

Reliability					
Metric	**2010**	**2011**	**2012**	**2013**	**2014**
% of state agencies with current IT disaster recovery plans (per year)[7]	89%	73%	54%	64%	69%
System availability	99.90%	99.99%	99.90%	99.90%	99.90%
Network availability	99.91%	99.91%	99.95%	99.95%	99.95%

[7]Percentage that submitted a full plan or certified no changes were made in the past year requiring a new or updated plan.

Sustainability					
Metric	**2010**	**2011**	**2012**	**2013**	**2014**
Energy used (MWh/year)	140,426	107,028	33% reduction achieved	33% reduction maintained	33% reduction maintained
Carbon dioxide emissions (Metric Tons)	70,213	41,994			
Metric	**2010**	**2011**	**2012**	**2013**	**2014**
# of electronic data breaches (per calendar year)[8]	268	81	96	120	178
# of breaches resulting in the loss of personally identifying information (PII)[9]	0	2	10	10	16
# of website compromises at state Agencies or entities (per calendar year)[10]	11	7	9	5	10

[8]The number of data breaches during the calendar year that involved unencrypted data in an electronic format (e.g., unencrypted laptop, thumb drive, unauthorized access to database through hacking or network intrusion, etc.).

[9]The number of breaches during the calendar year that involved unencrypted electronic devices and storage media lost or stolen containing PII.

[10]Includes any successful exploit of a state Agency or entity website vulnerability (e.g., defacement, SQL injection, etc.).

Annual Cost Savings and Avoidance Report from

California Department of Technology to the Department of Finance

Below is the report on 2014-15 cost savings and avoidances. This includes those planned for the remainder of the fiscal year and those already achieved to date through improvements to the way the state acquires, develops, implements, manages and operates state technology assets, infrastructure and systems.

2014-15 Cost Savings/Avoidances

FY 2014-15 Office of Technology Services Rate Savings	$2,524,452
Renegotiation of California Department of Technology contracts – Cost Avoidance	$10,044,805
Total	**$12,569,257**

Office of Technology Services (OTech) Rate Savings

The rate reductions for the following areas were approved in November 2014, and will achieve a $2.5 million reduction for fiscal year (FY) 14/15. Rate savings are redirected to fund increases in utilization, such as more online applications or increased data storage needs. The FY 14/15 rate adjustments are effective January 1, 2015. The FY 14/15 savings will be achieved in the following service categories:

- California Statewide Government Network (CSGNet) Retirement Fee rates are being eliminated.
  - The CSGNet infrastructure service costs have been decreasing as CSGNet circuits are migrated to the California Government Enterprise Network (CGEN). The retirement fee supports the CSGNet infrastructure during the state-wide migration to CGEN. All circuits are expected to be migrated by January 1, 2015. As planned, OTech has gradually decommissioned the CSGNet, therefore the retirement fee is no longer needed to support this infrastructure.

- Tenant Managed Services (TMS) Basic/Foreign Connectivity rates reduced by 57.8 percent.
  - The TMS Basic / Foreign Connectivity service currently uses the CSGNet infrastructure to provide connectivity. As CSGNet is being replaced by the CGEN, this service will be reconfigured to use the CGEN infrastructure for its access to OTech's Internet Service Providers and to all data center services.

- Site-to-Site Virtual Private Network rate reduced by 4.3 percent.
  - Virtual Private Networks (VPN) are used to establish secure, end-to-end private network connections over a public networking infrastructure. The Site-to-Site VPN service allows our customers to have offices in multiple fixed locations to establish secure connections with each other over a public network such as the Internet.

- Dedicated Network Equipment rates reduced by 4.9 percent.
  - Dedicated Network Equipment is hardware that is owned and supported by OTech for the use of a particular customer. Types of equipment include: switches, routers, metro switches, firewall devices and VPN concentrators. These rates will recover Tiered Switches and Tiered Routers, and establish new billing rates for Metro Ethernet Switches.

Renegotiation of California Department of Technology Contracts

Cost avoidances have been and will be achieved in FY 2014/15 through the renegotiation and renewal of contracts:

- Vendor discounting for maintenance renewals
- Discounting as a result of multi-year contracting
- Discounting as a result of volume purchasing or bundling of software licensing agreements